

more feasible. Repeat perfusions have been necessary in most patients over a period of at least three months, and sepsis has been a major problem.

In the final section new techniques of skin replacement using the synthetic membrane polytetrafluoroethylene are discussed and appear to offer promise in the severely burned patient. Current progress in organ preservation, banking, and freezing are also presented.

This highly informative, well-written symposium is the best review of the field of artificial organs and support systems currently available.

ERIC W. FONKALSRUD, MD

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CURRENT PEDIATRIC DIAGNOSIS AND TREATMENT—Second Edition—C. Henry Kempe, MD, Professor of Pediatrics and Chairman, Department of Pediatrics; Henry K. Silver, MD, Professor of Pediatrics; and Donough O'Brien, MD, FRCP, all from the University of Colorado School of Medicine, Denver; and Associate Authors, Lange Medical Publications, Drawer L, Los Altos, Ca. (94022), 1972. 1,008 pages, \$12.00.

This second edition of a book first published in 1970 is an up-to-date guide to pediatric treatment, diagnosis and physical examination. It should be particularly useful to pediatric house officers and young pediatricians for whom it is largely intended. Its approach is a practical one reflecting the clinical experience of its University of Colorado Medical Center authors, particularly that of Henry Silver who participates in 5 of its 40 chapters. Most of the 51 co-authors are members of the distinguished Department of Pediatrics of the Colorado Medical Center.

WILLIAM C. DEAMER, MD

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THE CRITICALLY ILL CHILD—Diagnosis and Management—Edited by Clement A. Smith, MD. W. B. Saunders Company, West Washington Square, Philadelphia (19105), 1972. 276 pages, \$11.75.

This volume is a compendium of articles which have appeared in series in *Pediatrics*. Each of the 22 chapters deals with a critical situation, often one which would reach the emergency room or which might be referred to a medical center. The authors are outstanding experts in their various fields and the book is edited by Clement Smith, Editor of *Pediatrics*.

Each subject is discussed in great depth and many portions are not easy reading. This is no Boy Scout Manual for the inept, but is designed for those with expertise and who have sophisticated equipment. Although, overall, the greatest value will be to hospitals with superior personnel, laboratory and other facilities, each chapter is loaded with valuable information and may be profitably read by any physician who might be confronted with these responsibilities. Although much of the material is complicated, the various authors have presented it well.

EDWARD B. SHAW, MD

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VECTORCARDIOGRAPHY IN CONGENITAL HEART DISEASE—A Method for Estimating Severity—R. Curtis Ellison, MD, Associate in Cardiology, Children's Hospital Medical Center, Assistant Professor of Pediatrics at the Children's Hospital, Harvard Medical School, Boston; Norma J. Restieaux, MB, ChB, FRACP, MRCP (London), Senior Lecturer in Medicine and Cardiologist, University of Otago Medical School, New Zealand, formerly, Fellow in Cardiology, Children's Hospital Medical Center, Boston. W. B. Saunders Company, West Washington Square, Philadelphia (19105), 1972. 209 pages, with 138 illustrations, \$13.50.

Many current methods of investigation of patients with congenital heart disease involve the use of complex techniques that not infrequently expose patients to discomfort and risk. The advantages of employing methods that are safe and reliable and may be used repeatedly even in seriously ill patients are obvious. One of the more important non-invasive techniques employed for the diagnosis and assessment of congenital cardiac disease is the vectorcardiogram. The current work is a summary of

ten years of experience with the Frank vectorcardiogram at the Children's Hospital and Medical Center in Boston. Ellison and Restieaux have placed their patient material into fourteen categories, based upon the type of congenital lesion present. Emphasis has been placed upon using vectorcardiographic measurements to assess hemodynamic severity. They deal mainly with the left and right maximum spacial voltages and the orientation of these vectors in space.

The first four chapters of this text are devoted to technique. There is a general discussion of vectorcardiographic principles, lead placement, and the methods employed for the calculation of the maximum spacial voltages and orientation. Stress is placed on the simplicity of the technique and the fact that the work can be performed, in large part, by a technician. The advantage of adapting their technique to computer analysis is outlined clearly.

Specific cardiovascular malformations are discussed separately in the remainder of the text. The chapters devoted to vectorcardiographic correlations in aortic and pulmonic stenosis are especially worthwhile, since many correlations have been obtained between left ventricular systolic pressure and the leftward maximum spacial voltage in patients with valvular aortic stenosis, and between right ventricular systolic pressure and rightward maximum spacial voltage in pulmonic stenosis. Unfortunately, the vectorcardiographic assessment of residual obstruction has not been found to be helpful in patients who have undergone operation for their stenotic lesion. In this same regard, while the authors' analyses of data from groups of patients is extremely helpful, no correlations are put forth concerning the association in any individual patient of changing hemodynamics and changing vectorcardiographic findings. With regard to the many other congenital malformations discussed in this work, it would appear that the Frank vectorcardiogram is most useful in quantifying intracardiac pressure changes and substantially less helpful in supplying criteria for predicting the extent of derangements induced by volume loads.

The text summarizes the current state of the art. It is adequately illustrated and the figures are of high quality. This book will be an important addition to the library of the clinical electrophysiologist or the practitioner of pediatric cardiology.

WILLIAM F. FRIEDMAN, MD

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TEXTBOOK OF ELECTROCARDIOGRAPHY—David Littmann, MD, Consultant in Cardiology, Formerly, Chief, Cardiology Section, Veterans Administration Hospital, West Roxbury, Massachusetts, Associate Clinical Professor of Medicine, Harvard Medical School, Lecturer in Medicine, Tufts University Medical School, Associate in Medicine, Massachusetts General Hospital, Boston, Senior Associate in Medicine, Peter Bent Brigham Hospital, Boston. Medical Department, Harper & Row, Publishers, Inc. 2350 Virginia Avenue, Hagerstown, Md. (21740), 1972. 533 pages with 627 illustrations, \$22.50.

This first edition of a *Textbook of Electrocardiography* is divided into seven chapters devoted to the normal electrocardiogram, hypertrophy and enlargement, conduction disorders, coronary heart disease, miscellaneous conditions, the abnormal electrocardiogram of no characteristic pattern, and electrocardiographic interpretation, plus an electrocardiogram illustration index and a subject index. The book is primarily a compendium of the author's collection of normal and abnormal electrocardiograms accumulated over a 25-year period while teaching clinical electrocardiography to medical students and residents. The text is secondary to the illustrations, the vast majority of which are photographic recordings. The quality of the reproductions is excellent, and with rare exception they are well selected.

The text discussions are informative, well-stated and finely illustrated. However, that pertaining to left ven-